DOCUMENT RESUME

ED 204 715 CS 006 151

AUTHOR Duffy, Gerald G.
TITLE Theory to Practice: How Does It Work in Real Classrooms?
SPONS AGENCY Michigan State Univ., East Lansing. Inst. for Research on Teaching.
PUB DATE Apr 81
NOTE 28p.: Paper presented at the Annual Meeting of the International Reading Association (26th, New Orleans, LA, April 27-May 1, 1981).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Educational Theories: Elementary Education: *Elementary School Teachers: Literature Reviews: *Reading Instruction: *Reading Research: Relationship: *Teacher Behavior: *Teaching Styles
IDENTIFIERS *Theory Practice Relationship

ABSTRACT

To clarify the interaction between elementary school teachers' theoretical orientations of reading and their classroom practices, this paper reviews the literature concerning theory-to-practice research. The studies are arranged into four categories: (1) teachers' conceptions of reading, (2) teacher planning, (3) teacher decision making, and (4) classroom reading practices. The paper discusses two findings from the review--one regarding the complexities of teaching and the other concerning the apparent absence of reading instruction in the classroom. It then suggests implications of the findings for teacher educators and for researchers. (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED204715

Theory to Practice: How Does It Work in Real Classrooms?

Gerald G. Duffy
Institute for Research on Teaching
Michigan State University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Gerald G. Duffy
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

A paper presented at the
annual conference of the
International Reading Association
New Orleans, April 29, 1981

Much of what is reported in this paper was produced by a team of researchers studying Teacher Conceptions of Reading at the Institute for Research on Teaching at Michigan State University. The author gratefully acknowledges the contributions of Linda Anderson, Robert Bawden, Sandra Buike, Edmund Burke, Pamela Coe, Lonnie McIntyre and William Metheny.

The work reported herein is sponsored by the Institute for Research on Teaching, College of Education, Michigan State University. The Institute for Research on Teaching is funded primarily by the Teaching Division of the National Institute of Education, United States Department of Health, Education and Welfare. The opinions expressed in this publication do not necessarily reflect the position, policy, or endorsement of the National Institute of Education. (Contract No. 400-76-0073)

CS206157

Reading educators have long emphasized the relationship which presumably exists between a teacher's particular theoretical orientation and his/her classroom practice. The assumption is that the reading theory governs the teacher's instructional decisions. However, research on teaching has caused a re-examination of this assumption. Such research suggests that while teachers do have implicit theories of reading, these do not govern instructional decisions. Instead, the majority of classroom teachers (especially primary grade teachers) work under conditions and pressures which make it difficult for them to translate abstractly-held conceptions into practice. This paper reviews the research on teaching which helps us understand the interaction between implicit theories and classroom practice, and suggests implications for reading education.

BACKGROUND

In recent years, frequent reference has been made to the hypothesis that reading teachers possess theoretical orientations regarding the nature of reading which organize experiences and trigger behaviors. Examples include Harste and Burke (1977) who find that"...despite atheoretical statements, teachers are theoretical in their instructional approach to reading"; Kamil and Pearson (1979) who state that "Every teacher operates with at least an implicit model of reading..." and Cunningham (1977) who argues for the importance of"...the teacher's beliefs about the reading process."

The genesis for this line of reasoning was the teacher effectiveness research which identified patterns of teacher process variables that do make a difference in terms of producing reading achievement and the hypothesis of cognitive psychologists that such behavioral patterns occur because teachers organize their world according to a conceptual frame or schemata or cognitive structure which drives them to select certain alternatives over others when making instructional decisions. This notion is implicit in Brophy and Good's (1974) statement that it is "...the teacher's belief system or conceptual base" which is particularly important, in Goodman and Watson's (1977) argument that "teachers should be able to articulate the program's theoretical base" and in the work of researchers such as Shulman (1975), Clark and Yinger (1977) and Shavelson (1976).

Reading educators have applied this idea to theoretical orientations of reading. It seemed reasonable to state, as do Kamil and Pearson (1979) and Cunningham (1977), that a particular theory of reading ought to result in significantly different instructional decisions, produce different classroom practices and result in different pupil outcomes than the opposite approach. As Kamil and Pearson (1979) state, "... different models dictate different (and sometimes opposing) instructional methods..." a point they then illustrate by examining top-down, bottom-up and interactive models of reading in terms of decisions such as initial program emphasis, use of sub-skills, integrating reading activities, amount and

type of practice, oral reading errors and selecting materials.

The question here is, "To what extent does this theory-to-practice hypothesis actually occur in real classrooms?"

RESULTS FROM RESEARCH ON TEACHING

While research on teaching has traditionally been associated with the process-product studies designed to determine teacher effectiveness, the emphasis since 1975 has been on teacher thinking. From such research, four types of studies have emerged which shed light on the theory-to-practice hypothesis as it occurs in classrooms: studies of teacher conceptions of reading, of teacher planning, of teacher decision-making and of classroom reading practices.

Results From a Study of Teacher Conceptions of Reading

While there have been several studies of the implicit theories of particular teachers (Harste and Burke, 1977; Mitchell, 1980) and of teachers in training (Deford, 1979) there has been only one large-scale, naturalistic study to determine whether teacher conceptions of reading are the foundation upon which teachers base instructional decisions about classroom reading instruction (Bawden, Buike & Duffy, 1979; Buike, Burke & Duffy, 1980). This research, which studied the reading conceptions and instructional practices of 23 elementary school teachers over three years, superficially supports the hypothesis that teachers operate from implicit theories of reading. For instance, the teachers studied did

have conceptions of reading which they referred to in abstract situations, although these conceptions tended to be more general than the theories promoted by reading specialists, (Duffy & Metheny, 1979). Further, these conceptions often seemed to be reflected in the observed classroom practice of teachers.

However, two other findings temper such conclusions. First, while some of the teachers employed practices consistent with their abstract conceptions, they did not attribute their practices to beliefs or conceptions, nor was there evidence that the conception "triggered" the instructional decision. Instead, teachers attributed instructional practice (and the decisions associated with the practice) to the nature of the clientele being served, to the commercial reading materials and/or to the need for maintaining activity flow. In short, what happens during reading periods is "triggered" not by implicit theories of reading but by teacher expectations, by demands for curriculum coverage (often tied to an ultimate outcome measure such as end-of-book tests, achievement tests, etc.) and to the need to "keep things moving."

Second, the classroom teachers possess <u>multiple</u> conceptions regarding classroom teaching, of which an implicit theory of reading was only one (and, usually, a much less pressing one). For instance, as noted above, teachers typically placed more emphasis on their conceptions of the learning context (the SES, grade level and ability level of the students), the classroom management problems and the importance of following the adopted basal series than on conceptions

regarding the nature of reading itself. Apparently, teachers initiate their thinking about reading instruction by considering the nature of the clientele first, then the specifics of the adopted instructional materials and then the demands for maintaining activity flow. Following this, most teachers tend to further delay any considerations of the nature of reading until they have first accounted for competing educational outcomes such as socialization, the demands of peer pressure, the pressures applied by the building administrator and the applicable accountability mandates. Once the teacher reconciles all these competing considerations, then the reading conception is applied. When filtered through so many layers of prior considerations, the implicit theory of reading is weak and diluted when it finally shows up in classroom practice. This "filtering process" is illustrated in Figure 1.

The conclusion is not that teachers reject reading theory. Rather, it is that the conception of reading is mediated by classroom conditions which are more immediately crucial to the teacher than the reading theory. Consequently, the teacher's reading conception is held in abeyance, with observed practice reflecting not the implicit theory but the instructional considerations which the teacher feels take priority.

Teacher Planning Research

Teacher thinking about planning has also received heavy

How Teachers Think About Reading

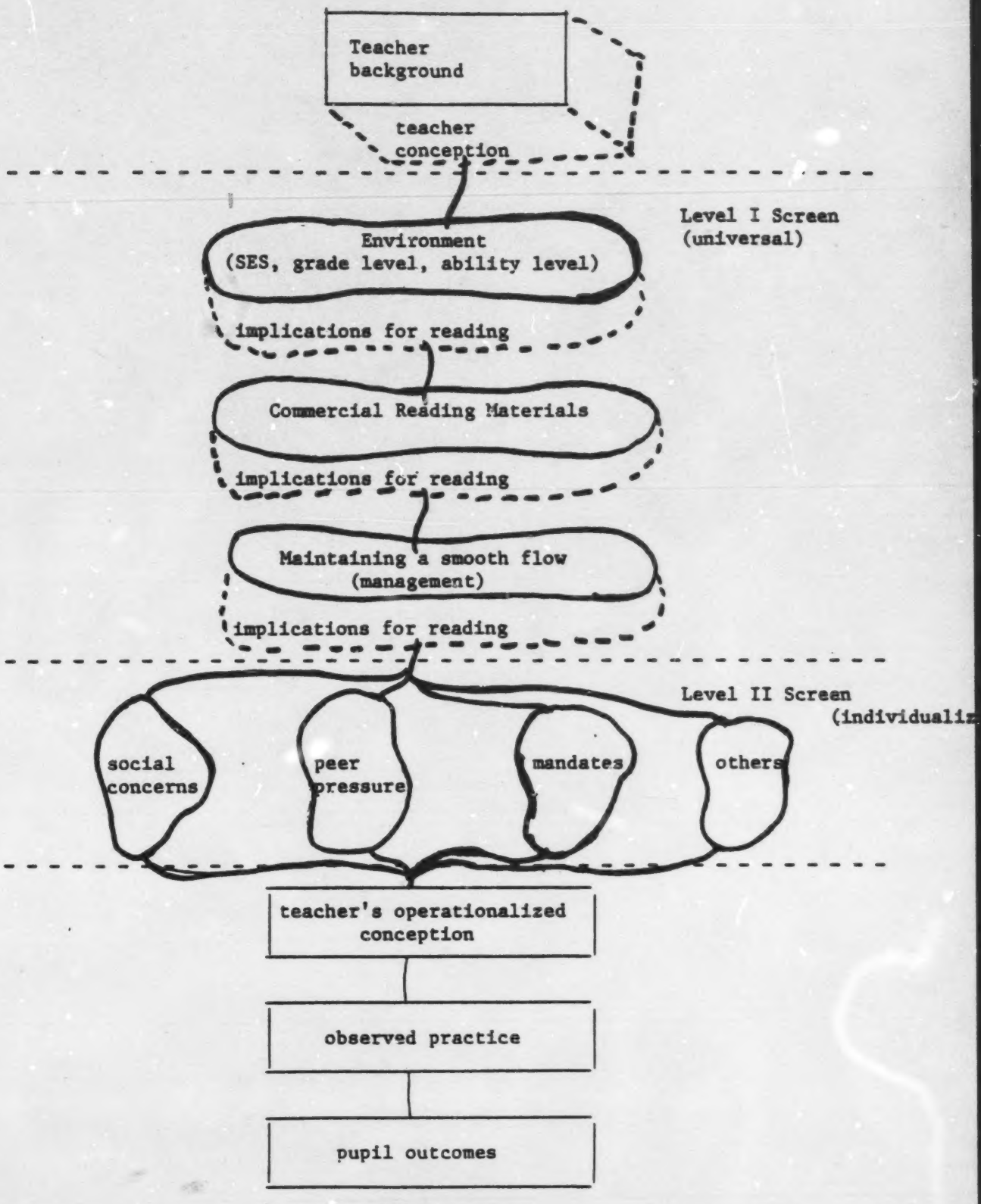

Figure 1

emphasis by researchers of teaching. Like the conceptions of reading research, the planning research contradicts some of the assumptions we have traditionally held about how teachers work.

Specifically, researchers have found that teachers do not use the theoretical planning model which proceeds logically from the selection of objectives to the instructional activities and through the ultimate evaluation. Instead, teacher plans focus on what is to be covered and the activities which "carry" the content (Clark & Yinger, 1979; Morine-Dershimer, 1979; Peterson, Marx & Clark, 1978), with the objective being coverage of the material, closure on the activity, and ageneralized sense of pupil achievement, rather than the specific learning of identifiable concepts, principles or skills by pupils. Therefore, the theoretical and rational teacher education emphasis on objective-driven planning is not reflected in classrooms. Practicing teachers do not plan this way.

Teachers do plan. However, they do not plan in the "means-to-ends,""objective-to-evaluation" sequence favored in teacher education classes. In practice, teacher plans focus on activity selection designed to maintain smooth classroom flow and to "cover" curriculum content.

Research on Teacher Decision-Making

Similar results emerge from research on the conscious and deliberate decisions teachers make during the actual act

of teaching. Like planning, teacher decision-making focuses on activities rather than objectives, with teachers judging how well things are going on the basis of student participation in these activities (Duike, 1980; Connors, 1978; Marland, 1978). The emphasis is typically on the activity flow, with decision-making limited to making minor adjustments (usually of a managerial nature) when the activity flow is interrupted (Morine-Dershimer, 1979; Joyce, 1978-79).

This body of research, like the planning research, produces little evidence to suggest that classroom teachers of reading make on-going instructional decisions based on implicit theories of reading. The only decisions beyond management which classroom reading teachers appear to be making are those associated with grouping procedures, particularly group size and membership and the pacing of groups through materials. Decisions about what to teach and which activities to pursue are almost universally left to the basal text rather than being made in response to an internally-held theory of reading. The decision to use the basal text in the first place is not, typically, the teacher's decision but one which is mandated.

Results From Studies of Classroom Practice

The work on teacher thinking has led to intensive classroom observation which has produced data on the nature of practice itself. These data indicate that teachers employ a form of instruction which is considerably less sophisticated than the instructional expectations associated with the

hypothesis about implicit theories of reading.

The classic work in this regard is Durkin's (1979) study of comprehension instruction. After spending hours observing a variety of elementary classes, she concluded that her teachers engaged in virtually no comprehension instruction; they "assessed" and "mentioned" comprehension, but they did not teach comprehension. In a subsequent study reported in the Michigan Secondary Reading Newsletter (Richey, 1980), Durkin attributes much of the difficulty to the absence of instructional suggestions in the teacher's guide of basal textbooks and to the abundance of practice suggestions.

A study by Duffy and McIntyre (1980) resulted in a similar conclusion. After studying the audio tape transcripts, field notes and interview notes of six primary grade teachers, they concluded that these teachers, with only minor variations, were monitoring pupils through commercial materials in which the major instructional activity was to check the accuracy of pupil responses and, in some cases, provide spontaneous reactive cues to errors. In addition, the teachers' responses to interviews indicated that, for the most part, this is what they thought they were supposed to do; in short, they perceived themselves as being responsible for "piloting" or "guiding" pupils through materials with instruction being limited to corrective feedback.

These findings are also reflected in the work of Mehan (1979) and Duncan and Biddle (1974), both of whom note that

the predominate observed teacher-pupil interaction is one in which the teacher asks a question, the pupil responds, and the teacher sometimes provides an evaluative response. The work of Hoffman and his colleagues (Hoffman, O'Neal and Baker, 1980; Hoffman, 1981) provides additional specific evidence as it pertains to reading. Such interactions, labeled "reactive" instruction by Duffy and Roehler (1980), provide little support for the hypothesis that the teacher's implicit theory of reading triggers instructional decisions. In fact, the typical instruction is so textbook/workbook bound that it seems to demand the behavior of a technician rather than the decision-making of a professional. Such instructional practice suggests that the theory of the basal, rather than the theory held by the teacher, is the key to instructional decisions.

Summary

The research on conceptions of reading, on teacher planning, on decision-making and on classroom practice all suggest that the theory-to-practice hypothesis, particularly as it relates to implicit theories of reading, does not work in real classrooms in the way we though it did. Instead, teachers project a materials-driven, activity-focused image in which they make few instructional decisions about either curriculum (what to teach) or instruction (how to teach it). They become, in effect, technicians who, while displaying a practical wisdom and making a multitude of decisions about

organizing and managing a learning environment, nevertheless abdicate to the commercially-produced basal text the decision-making regarding what to teach and how to teach it.

It is important to note again that the finding is not that teachers reject theories of reading. To the contrary, many seem to possess favored conceptions which they can articulate in abstract situations. However, there is a chasm between the abstract theory and the reality of practice. Differences between abstract articulation and practice are not limited to reading. For instance, a study of content integration (Roehler and Schmidt, 1979) found that teachers can abstractly integrate reading and language arts acitivites but, in the classroom context, they seldom do. Similarly, Mason, Osborn and Freebody (1981) found that, while teachers possess abstract conceptions regarding when comprehension should be taught, these are not reflected in their work because of the pervasive influence of commercial materials.

In short, the evidence from research on teaching is virtually unanimous: classroom teachers may possess abstract, theoretically-based conceptions of reading but these conceptions do not significantly influence their teaching of reading. In this sense, research on teaching substantiates the age-old teacher adage that "theory is not practical." It is not practical because, as the data show, other aspects of the teaching act, such as the context within which the teacher works, the implicit and explicit social system which mediates behavior and the pressure of smoothly maintaining activity

flow, demand the teacher's immediate attention, leaving little or no time for applying theory to practice.

CONCLUSIONS AND IMPLICATIONS

The research on teaching is discouraging regarding the theory-to-practice hypothesis. Nevertheless, it is valuable research because, while it fails to provide answers, it does illuminate problems which must be addressed if we are to improve teacher education and focus future research.

Conclusions

The research on teaching suggests two conclusions regarding how the theory-to-practice hypothesis works in real classrooms. The first regards the complexities of teaching and the second relates to the apparent absence of instruction.

The complexities of classroom practice. A persistent problem which surfaces in all research on teaching is the complexity associated with delivering schooling simultaneously to twenty-five or thirty pupils. These complexities include a multitude of classroom realities. For instance, the process-product research (Rosenshine, 1976; 1979), with its emphasis on routinized management procedures and resultant high pupil engagement rates, suggests that classroom practice may be driven by management considerations rather than being theory-driven. Similarly, research on social interaction patterns in classrooms (Mason and Au, in press; Mehan, 1979) suggests that the implicit rules governing "going-to-school behavior" may influence a teachers' classroom behavior more than theories

of reading. A third hypothesis is raised by Shavelson (1980) who suggests that the classroom setting, with its population of 25 or more students, creates a need for developing a sense of classroom community that is more pressing than other factors. Fourth, Shulman (1980) suggests the possibility that the "role strain" which results from the multiple roles teachers must play influences teacher thinking more than theory. Finally, Schwille, Porter and Gant (1980) suggest that outside pressures and mandates from testing programs, accountability movements and parents take precedence over theory in the teacher's thinking. All these and others are part of the teacher's workplace and, in many cases, demand more immediate attention than reading theory. Awareness of these complexities and how they mediate a teacher's attempts to convert theory to practice ought to help us be more realistic about the nature of teaching and the difficulty in implementing seemingly straight-forward theoretic implications.

The absence of instruction. The second problem surfaced by this research is the apparent absence of instruction. Study after study reports that classroom teachers of reading think of teaching as a series of activities which move pupils through a basal textbook and that learning to read is accomplished by virtue of such coverage. These activities are conducted as if pupils are already supposed to be able to complete them and instruction is almost universally confined to spontaneous teacher feedback after pupils have erred. Teachers are seldom observed providing substantive assistance

to pupils and they almost never provide such assistance prior to asking the pupil to respond to the activity. Such an absence of instruction is no doubt tied, in part, to the fact that teachers are often so absorbed with the above-noted complexities of schooling that instruction receives less attention. However, since most teachers closely follow basal textbooks, one must assume that what teachers do is a reflection of the concept of instruction presented in these texts. Consequently, if neither teachers nor basal text writers are providing substantive instructional interactions during reading, the question arises regarding whether either has a clear concept of the nature of instruction.

Perhaps teachers have difficulty applying theory to practice because they are armed with a theory of reading but not with an accompanying theory of instruction. In the absence of such a conception of how to implement their particular theories of reading, teachers depend on "the experts" who write the basals. Unfortunately, however, the basals themselves promote, rather than discourage, the activity-focused and feedback-limited instruction so frequently observed. In short, a deadly cycle is perpetuated: teachers who must be concerned about activity flow possess no clear concept of how to teach and, logically enough, turn to the commercially prepared materials for direction; the basals, in turn, knowing how concerned teachers are with activities and management, limit their instructional suggestions almost

exclusively to those which help teachers insure the maintenance of activity flow and control. Hence, the instructional vacuum is perpetrated.

Implications

Two sets of implications are suggested by this review of those studies of teaching which shed light on the theory to-practice hypothesis. The first focuses on teacher education and the second on future research efforts.

Teacher education. When viewed in light of the research on teaching, it is apparent that our expectations regarding how theory about the nature of reading is translated into practice was a bit naive. Clearly, the process is more complicated than suggested by the eminently rational articles discussing how a particular theory triggers a particular set of instructional decisions. In fact, the entire set of expectations about the nature of instructional decisions and whether teachers make such decisions is under question. In light of such findings, three implications for teacher educators become clear.

First, classroom reading instruction is far too complex for reading educators to confine themselves exclusively to the nature of reading and language. The problems of management, school social systems and other complexities of teaching must also be the province of the reading educators, and the theory of reading must be presented to pre-service and in-service teachers within the context of these realities. Only if we

deal with these complexities can we arm teachers to handle classrooms and, within that context, to intelligently implement theory in daily practice.

Second, we must come to grips with the problem of instruction. Currently, reading educators devote little attention to the nature of instruction beyond the extremes of advocating, on the one hand, a "natural" instruction in which pupils learn to read without teacher intervention and, on the other, of suggesting appealing "make it and take it" games, drills and activities which promote activity flow. Neither focuses on the heart of instruction: what the teacher specifically does to expedite and assist pupils in their attempts to learn to read. Because of this lack, teachers almost universally turn to basal textbooks as the only "practical" source open to them. Reading educators must help break the cycle of dependence on the basal text by providing substantive instructional assistance to teachers who are daily faced with the very real task of providing tangible help to children who do not learn to read easily.

Finally, reading educators ultimately must determine the role to be played by teaching scripts. If, indeed, teaching is so complex and if instruction itself is so complicated and detailed, then should we prepare educational scripts for teachers which, in effect, leaves decisions about what and how to teach to experts while freeing teachers to concentrate on the other complexities of teaching? While the basal text is itself a loose type of script, the DISTAR

materials (Becker, Engleman and Carnine, 1979) and the computer programs being developed at the University of Illinois (Siegel, et. al, 1981) are much more prescriptive and, as such, are the type of script being referred to here. The question is whether teachers can be realistically expected to handle the complexities of the classroom without the aid of such scripts, (or more specifically, whether we in teacher education can prepare teachers to apply theory to practice without giving them scripts). Rosenshine (1981) for one, says that not everyone can be the "master teacher" who does all things well and that, instead, a "master developer" should create the best possible materials so that virtually all teachers will be able to teach effectively. Of course, much controversy surrounds such proposals; although the various Follow-Through studies leave little question that scripts can produce consistent achievement growth (Bereiter, 1979), there are many questions regarding whether the inflexibility inherent in scripts can be responsive to the unique needs of pupils while also providing teachers with a viable sense of professional pride. If we cannot neutralize the problems posed by the complexity and instruction issues, however, we may be left with no alternative but to face such questions and provide "better" scripts.

In summary, reading educators must provide more tangible assistance to teachers if reading theory is to be applied effectively in classrooms. The choice seems to be either educating our teachers to deal with theory within the

framework of classroom complexities and instruction or providing them with explicit scripts within which the theory is embedded.

Future research. Suggestions for research regarding how theory is translated into practice tends to fall into two categories. The first, voiced by some reading educators (Pearson 1981), calls for the creation of additional rational models. The reasoning is that, because naturalistic studies indicate that teachers do not apply theory in observed practice, such studies have nothing to offer and we must re-double our efforts to create in the abstract a more rational and analytic set of theories. Such reasoning seems doomed to repeat the failures of the past. While clear, analytic thinking about the nature of reading is always helpful, the lesson from research on teaching is not that the theories themselves are bad but, rather that they are presented in isolation from the realities of practice. Consequently, the answer does not lie with generating still more abstract theories which disregard the complexities of classroom teaching.

The second type of research approaches the problem within the context of the realities of practice and, as such, is more cumbersome and calls for much time. It focuses on developing a better understanding of the naturalistic conditions of teaching and then using the findings from such research as the basis for intervention studies with teachers. One example is the small descriptive study contrasting the instructional practices of a highly-regarded, experienced second grade teacher

and a professor of reading instruction (the author) (Duffy, Roehler, Reinsmoen, 1981). In this study, the regular teacher was observed, interviewed and submitted self-report data over a two week period. The professor then took over the classroom for the next five weeks, during which time he was observed, interviewed and submitted self-report data. The resultant descriptions indicated that the two teachers were virtually identical in categories such as professional concern, management, generating time-on-task, use of materials, grouping and daily activities and that casual visitors to the classroom might assume that their instruction was identical. In fact, however, careful analysis reveals significant contrasts. The professor modified the curriculm to be taught, adding elements, integrating others and eliminating others; he modified the use of the textbook; he employed a non-standard instructional sequence; he supplemented textual activities with elements of instructional design; and he planned in terms of specific literacy goals and the specific objectives which contributed to those goals. The regular teacher's work, in contrast, was typical of the instructional practice noted earlier. In terms of the theory-to-practice question, then, the professor made curricular decisions (decisions about what to teach) which were rooted in a conception of reading as well as instructional decisions (decisions about how to teach), while the regular teacher made few curricular or instructional decisions beyond management and grouping

concerns, relying heavily on the basal text for both what to teach and how to teach it.

Why did this difference exist? Both teachers successfully dealt with the multiple complexities of classroom teaching and both were accountable for using the same curricular mandates, objective-based system and adopted textbooks. Yet, the professor made substantial instructional decisions and the regular teacher did not. Why?

A major part of the explanation lies with the professor's more extensive and deeper knowledge of the nature of the reading process--his theory of reading. Because he knew he knew, however, his theory was explicit, not implicit, and he was more liable to question the prescriptions of basal texts and more confident in making decisions.

However, while this was obviously important, it was also clear that the thinking of the professor was also governed by a conception of instruction within which the conception of reading was nestled. This theory of instruction was also explicit, including the principles that instruction should be ends-oriented, that the instructional program should reflect an integration of the components and activities of reading, that the instructional sequence should emphasize transfer, that instruction should make the implicit principles which govern language processing explicit for these pupils who do not generalize to it themselves, that instructional design components should be inserted into lessons to provide tangible assistance for pupils having difficulty and, perhaps

most important, that he was uniquely capable of providing instruction but that the materials were not capable of doing so.

While this single study does not provide answers in an ultimate sense, it does substantiate the importance of the complexities noted earlier while strengthening the hypothesis that teachers can deal with the complexities of teaching while making their own instructional decisions if they know how to manage large groups of children, if their theory of reading is explicit and if they have an accompanying explicit theory of instruction which specifies a manageable, workable and specific procedure for presenting the content of reading to pupils. If the findings of other studies like this are tested in teacher intervention studies to determine whether more effective results could be achieved when teachers are trained to deal with classroom complexities and to use explicit theories of reading and instruction, we might find that teachers so educated do actually apply theory to practice more effectively.

SUMMARY

Research on teaching indicates that the theory-to-practice hypothesis does not work quite as simply as we had thought it did. Further, the research suggests two confounding issues: first, because reading is taught in classrooms of twenty-five or more pupils rather than on a one-to-one basis, management

and social considerations are significant and, second, that instruction is typically confined to a pupil response activity in which the pupil figures out how to do it while doing it rather that receiving proactive assistance from the teacher regarding how to do it.

While these results are, in some ways, discouraging, they can serve as springboards to improved use of theory in practice. However, such results can be achieved only if reading educators present their theory within the context of classroom realities and with adequate attention to instruction and if researchers continue to provide data which helps us understand the nature of real classrooms and how theory can most effectively be translated into practice. With concerted efforts in these directions, teachers may become effective at applying theory while also dealing with all the other complexities of classroom teaching.

References

Bawden, R., Buike, S., & Duffy, G. Teachers' conceptions of reading and the impact on instructional behavior. A synopsis of a Research Symposium presented at the Annual Conference of the International Reading Association, Atlanta, Georgia, 1979.

Becker, W.C., Engleman, S. & Carnine, D. "The Direct Instruction Model." Encouraging Change in America's Schools: A Decade of Experimentation. New York: Academic Press, 1979.

Bereiter, C. Comments made at an invited symposium. Institute for Research on Teaching, Michigan State University, November, 1978.

Brophy, J.E. & Good, T.L. Teacher-student relationship: Causes and Consequences. New York: Holt, Rinehart and Winston, 1974.

Buike, S., Burke, E. & Duffy, G. Teacher Conceptions of Reading As They Influence Instructional Decisions and Pupil Outcomes. A paper presented at the annual conference of the International Reading Association, St. Louis, May, 1980.

Buike, Sandra. Teacher Decision Making in Reading Instruction. Research Series #79, Institute for Research on Teaching, Michigan State University, May, 1980.

Clark, C. & Yinger, R. Research on teacher thinking. Curriculm Inquiry, 1977, 7, 279-304.

Clark, C. & Yinger, R. Three Studies of Teacher Planning. Research Series No. 55, Institute for Research on Teaching, Michigan State University, 1979.

Connors, R.D. An Analysis of Teacher Thought Processes, Beliefs and Principles During Instruction, Ph. D. Dissertation, Department of Elementary Education, University of Alberta, 1978.

Cunningham, P. Match informal evaluation to your teaching practices. The Reading Teacher, 1977, 31, 51-56.

Deford, Diane. Paper presented at the Nationa Reading Conference, San Antonio, December, 1979.

Duffy, G. & McIntyre, L. A Qualitative Analysis of How Various Primary Grade Teachers Employ the Structured Learning Component of the Direct Instruction Model When Teaching Reading. Research Series No. 80, Institute for Research on Teaching, Michigan State University, June, 1980.

Duffy, G. & Metheny, W. The development of an instrument to measure teacher beliefs about reading. In M. Kamil & A. Moe (Eds.) Reading research: Studies and applications. Twenty-eighth Yearbook of the National Reading Conference. Clemson, South Carolina: National Reading Conference, 1979.

Duffy, G. & Roehler, L. Classroom Teaching Is More Than Opportunity To Learn. Unpublished paper, Michigan State University, 1980.

Duffy, G., Roehler, L. & Reinsmoen, D. A Descriptive Study of Two Styles of Direct Instruction in Teaching Second Grade Reading and Language Arts. Unpublished paper, Michigan State University, 1981.

Dunkin, Michael & Biddle, Bruce. The Study of Teaching. New York: Holt, Rinehart and Winston Inc., 1974.

Durkin, Delores. "What Classroom Observations Reveal About Reading Comprehension Instruction." Reading Research Quarterly, 1979, 14 481-533.

Goodman, Y. & Watson, D. "A reading program to live with: Focus on comprehension." Language Arts, 1977, 54, 868-879.

Harste, J.C. & Burke, C.L. A new hypothesis for reading teacher research: Both teaching and learning of reading are theoretically based. In P.D. Pearson (Ed.) Reading: Theory, research and practice, Twenty-sixth Yearbook of the National Reading Conference, Clemson, South Carolina: National Reading Conference, 1977.

Hoffman, James. Personal communication. University of Texas, Austin, March 30, 1981.

Hoffman, James, O'Neal, Sharon & Baker, Christopher. A Comparison of In-service and Pre-service Teacher Verbal Feedback to Student Miscues Across Two Difficult Levels of Text. Paper presented at the National Reading Conference, San Diego, December, 1980.

Joyce, B. Toward a Theory of Information Processing in Teaching, Educational Research Quarterly, 1978-79, 3, 66-67.

Kamil, M. & Pearson, P. Theory and practice in teaching reading. New York University Educational Quarterly, Winter, 1979, 10-16.

Marland, P.W. A Study of Teachers' Interactive Thoughts. Unpublished doctoral dissertation, University of Alberta, 1978.

Mason, J. and Au, K. Learning Social Context Characteristics in Pre-reading Lessons. In J. Flood (Ed.), Understanding Reading Comprehension, Newark, Del., IRA, in press.

Mason, J. Osborn, J. & Freebody, P. When Do Children Begin "Reading To Learn": A Survey of Classroom Reading Instruction Practices in Grades Two Through Five. Unpublished paper, University of Illinois, 1981.

Mehan, Hugh. Learning Lessons: Social Organization in the Classroom. Cambridge: Harvard University Press, 1979.

Metheny, W. The influence of graded pupil ability levels on teachers' conceptions of reading. Research Series No. 69, East Lansing, Michigan: Institute for Research on Teaching, Michigan State University, 1980.

Mitchell, Katherine. "Patterns of Teacher-Student Responses to Oral Reading Errors as Related to Teachers' Theoretical Frameworks." Research in the Teaching of English, 14, (October, 1980), 243-263.

Morine-Dershimer, G. Teacher Plan and Classroom Reality: The South Bay Study, Part IV Research Series No. 60, Institute for Research on Teaching, Michigan State University, 1979.

Pearson, P.D. Personal communication. Center for the Study of Reading, University of Illinois, Urbana. March 25, 1981.

Peterson, P.L., Marx, R.W., & Clark, C.M. Teacher Planning, Teacher Behavior, and Student Achievement. American Educational Research Journal, 1978, 15 iii, 417-432.

Richey, Rita. "Durkin, Tierney Keynote Research Conference." Michigan Secondary Reading Interest Council Newsletter. 2 (November-December, 1980), 4-6.

Roehler, L. & Schmidt, W. "Language Arts." Progress Report for January 1 - June 30, 1980. Institute for Research on Teaching, Michigan State University, June 30, 1980.

Rosenshine, B. "Classroom Instruction." The Psychology of Teaching Methods, Seventy-fifth Yearbook of the Society for the Study of Education, Part I (N.L. Gage, ed.). Chicago: University of Chicago Press, 1976.

Rosenshine, B. "Content, Time and Direct Instruction." Research on Teaching: Concepts, Findings and Implications. (H. Walberg and P. Peterson, eds.). Berkeley: McCutchan Publishing Company, 1979.

Rosenshine, Borak. Comments made to the Invisible College of Researchers on Teaching, U.C.L.A., Los Angeles, April 11, 1981.

Schwille, J., Porter, A., & Gant, M. Content Decision-Making and the Politics of Education. Research Series No. 52. Institute for Research on Teaching, Michigan State University, 1980.

Shavelson, R. Research on Teachers' Pedagogical Thoughts, Judgments, Decisions, and Behavior. Paper presented for the National Institute of Education, 1980.

Shavelson, R. Teacher's decision making. In N.L. Gage (Ed.) the psychology of teaching methods: Seventy-fifth Yearbook of the National Society for the Study of Education, (Part I.) Chicago: University of Chicago Press, 1976.

Shulman, L. Reflections on Individual Differences and the Study of Teaching. Unpublished paper, Michigan State University, 1980.

Shulman, L. Teaching as clinical information processing. In N.L. Gage (Ed.) In National conference on studies in teaching. Washington, D.C.: National Institute of Education, 1975.

Siegal, Martin and his colleagues. Personal communication. PLATO Curriculum Project, Computer Education Laboratory, University of Illinois, Urbana, March 24, 1981.